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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,735	07/16/2004	Wayne Keith Webb	APV31805	5153
24257 7590 03/21/2007 STEVENS DAVIS MILLER & MOSHER, LLP 1615 L STREET, NW SUITE 850 WASHINGTON, DC 20036			EXAMINER BELL, BRUCE F	
			ART UNIT	PAPER NUMBER
			1746	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/21/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/501,735	Applicant(s) WEBB, WAYNE KEITH	
	Examiner Bruce F. Bell	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-26 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, 10, 13-16, 18, 19, 23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 3, 7-9, 11, 12, 17, 20-22 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6, 10, 13-16, 18, 19, 23, 25, 26 are rejected under 35

U.S.C. 102(b) as being anticipated by Borst et al (4882027).

Borst et al disclose a cathode hanger for electro-refining or electro-winning of copper. The cathode comprises a steel hanger bar having a copper cladding and a flat stainless steel starter sheet with a plurality of lugs formed along its upper edge secured to the hanger bar. The lugs of the stainless steel starter sheet are bent, in opposite directions to abut and engage the side faces of the copper-clad hanger bar and are welded to the copper cladding. See abstract. The stainless steel cathode comprises a hanger bar 10 having a mild steel core 12 with a copper cladding 14 tightly enveloping or bonded to core 12 from one end of the bar to the other. See col. 2, lines 45-51. An austenitic stainless steel plate or starter sheet 16 has a plurality of oppositely bent lugs 18, 20 formed along its upper edge initially diverging upwardly and outwardly at 22, 24 and then extending parallel to the plane of the sheet 16 close to or abutting side faces 26, 28 of copper clad hanger bar 10 to receive bar 10 therebetween. See col. 2, lines 52-58. Stainless steel strips 70 and 72 are explosion bonded to the side faces 26, 28 of

the hanger bar to provide good electrical and mechanical contact therewith and to facilitate welding of the lugs to the hanger bar by welds. See col. 3, lines 33-38.

The prior art of Borst et al anticipates the applicants instant invention as shown by way of the disclosure above with respect to the instant claims as set forth. As can be seen by the prior art invention, the hanger bar is coated with an electrically conductive metal cladding of copper and since it is completely covered, the metal cladding extends over at least a portion of the support element or hanger bar, and since the cathode starter sheet is a complete structure with lugs, the lugs are supported along the entire side of the metal cladding and therefore, the cladding does extend over (part way down) at least a portion of the cathode blade. The support element or hanger bar is disclosed to be stainless steel and the cladding is disclosed to be copper. Since the cladding is disclosed to be tightly enveloping or bonded to the core, the examiner construes this to be an interference fit and is considered to be mechanically and/or chemically fastened to the support element. Further, since the lugs are affixed to the electrically conductive metal cladding on the sides of the cladding, the cladding would inherently extend from the support element to a position 30 to 40 mm above the metal, since the starter sheet would not be immersed up to that divergent area of the lugs connected to the cladding. The method of making the cathode plate would also be taught for the reasons set forth above with respect to the instant claims.

Therefore, the prior art of Borst anticipates the applicants instant invention as shown by way of the disclosure above and the reasons set forth by the examiner above.

Allowable Subject Matter

3. Claims 3, 7-9, 11, 12, 17, 20-22, 24 are allowable over the prior art of record.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest the hanger bar being hollow, that the cladding is welded to the support element, that the support element is co-extruded with the electrically conductive metal cladding, that the metal cladding is roll formed onto the support element, or that the cladding is affixed to the support element after connection of the support element and the cathode blade.

Response to Arguments

5. Applicant's arguments with respect to the claims rejected have been considered but are moot in view of the new ground(s) of rejection set forth above.
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BFB
March 6, 2007


Bruce F. Bell
Primary Examiner
Art Unit 1746